

WE CLAIM:

1. A system for use in the prevention or treatment of an arterial injury comprising: a drug eluting stent and a delivery catheter, wherein said drug eluting stent comprises:

- a) a stent framework; and
- b) a porous material having a consistently distributed porosity with a plurality of particles of a water-insoluble salt of a therapeutic material dispersed throughout said porous material.

2. The system of claim 1, wherein said stent framework is a metallic material.

3. The system of claim 1, wherein said stent framework is a polymeric material.

4. The system of claim 1, wherein said stent framework is selected so as to allow said stent to be self-expanding.

5. The system of claim 1, wherein said stent framework is a combination of metallic and polymeric elements.

6. The system of claim 3, wherein said polymeric material is nonbioadsorbable.

7. The system of claim 3, wherein said polymeric material is bioadsorbable.

8. The system of claim 3, wherein said polymeric material is a composite of bioadsorbable and nonbioadsorbable polymeric materials.

9. The system of claim 1, wherein said stent framework is a composite of bioadsorbable and nonbioadsorbable elements.

10. The system of claim 9, wherein said bioadsorbable element is a polymeric material and said nonbioadsorbable element is a metallic material.

11. The system of claim 6, wherein said nonbioadsorbable polymeric material is selected from the group consisting of polyethylene terephthalate, polyurethane urea and silicone.

12. The system of claim 8, wherein said nonbioadsorbable polymeric material is selected from the group consisting of polyethylene terephthalate, polyurethane urea and silicone.

13. The system of claim 1, wherein said porous material is a film disposed on the outer surface of said stent framework.

14. The system of claim 13, wherein said film is selected from the group consisting of TEFLO, silicone, polyurethane, polysulfone, polyethylene, polypropylene, polyamide, polyester, polytetrafluoroethylene, and a combination of two or more of these materials.

15. The system of claim 13, wherein said film is selected from the group consisting of a natural hydrogel, a synthetic hydrogel, and cellulose, and a combination of two or more of these materials.

16. The system of claim 1, wherein said porous material is incorporated into said stent framework.

17. The system of claim 16, wherein said porous material is selected from the group consisting of TEFLO, silicone, polyurethane, polysulfone, polyethylene, polypropylene, polyamide, polyester, polytetrafluoroethylene, and a combination of two or more of these materials.

18. The system of claim 16, wherein said porous material is selected from the group consisting of a natural hydrogel, a synthetic hydrogel, and cellulose, and a combination of two or more of these materials.

19. The system of claim 1, wherein said water-insoluble salt of a therapeutic material comprises an antithrombotic material.

20. The system of claim 19, wherein said antithrombotic material is heparin.

21. The system of claim 1, wherein said water-insoluble salt of said therapeutic material is selected from the group consisting of barium, and calcium salts of said therapeutic material.

22. The system of claim 1, wherein said therapeutic material comprises at least one substance selected from the group consisting of an antithrombotic, an antiplatelet agent, an anticoagulant agent, an antimitotic agent, an antioxidant agent, an antimetabolite agent, and an anti-inflammatory agent.

23. The system of claim 1, wherein said therapeutic material is effective to treat or prevent restenosis.

24. The system of claim 1, wherein said water-insoluble salt of a therapeutic material is a radioactive salt.

25. A system for use in the prevention or treatment of an arterial injury comprising: a drug eluting stent and a delivery catheter, wherein said drug eluting stent comprises:

- a) a stent framework; and
- b) a porous material having a consistently distributed porosity with a plurality of particles of a water-insoluble salt of a therapeutic material dispersed throughout said porous material,

wherein said stent framework is a composite of at least one bioadsorbable polymeric material and at least one nonbioadsorbable polymeric material.

26. The system of claim 25, wherein said polymeric materials are selected so as to allow said stent to be self-expanding.

27. The system of claim 25, wherein said nonbioadsorbable polymeric material is selected from the group consisting of polyethylene terephthalate, polyurethane urea and silicone.

28. The system of claim 25, wherein said porous material is a film disposed on the outer surface of said stent framework.

29. The system of claim 28, wherein said film is selected from the group consisting of TEFLO, silicone, polyurethane, polysulfone, polyethylene, polypropylene, polyamide, polyester, polytetrafluoroethylene, and a combination of two or more of these materials.

30. The system of claim 28, wherein said film is selected from the group consisting of a natural hydrogel, a synthetic hydrogel, and cellulose, and a combination of two or more of these materials.

31. The system of claim 25, wherein said porous material is incorporated into said stent framework.

32. The system of claim 31, wherein said porous material is selected from the group consisting of TEFLON, silicone, polyurethane, polysulfone, polyethylene, polypropylene, polyamide, polyester, polytetrafluoroethylene, and a combination of two or more of these materials.

33. The system of claim 31, wherein said porous material is selected from the group consisting of a natural hydrogel, a synthetic hydrogel, and cellulose, and a combination of two or more of these materials.

34. The system of claim 25, wherein said water-insoluble salt of a therapeutic material comprises an antithrombotic material.

35. The system of claim 34, wherein said antithrombotic material is heparin.

36. The system of claim 25, wherein said water-insoluble salt of said therapeutic material is selected from the group consisting of barium, and calcium salts of said therapeutic material.

37. The system of claim 25, wherein said therapeutic material comprises at least one substance selected from the group consisting of an antithrombotic, an antiplatelet agent, an anticoagulant agent, an antimitotic agent, an antioxidant agent, an antimetabolite agent, and an anti-inflammatory agent.

38. The system of claim 25, wherein said therapeutic material is effective to treat or prevent restenosis.

39. The system of claim 25, wherein said water-insoluble salt of a therapeutic material is a radioactive salt.